

**Tribal Monthly Conference Call**

Thursday, May 15, 2008

2:00-3:00 EST

Call-in Number: (866) 299-3188

Access Code: (919) 541-5624

**Tribal Attendees**

Amy Awlish  
Angela Benedict-Dunn  
Angela Lamberth  
Beverly Penny  
Bill Campbell  
Bill Thompson  
Brain Napointe  
Brandy Toft  
Eveline Martinez  
James Jutikee  
Jerney Howe  
Kermit Snow  
Kevin Greenleaf  
Lisa Riner  
Maureen King  
Mehrdad Katibi  
Randy Ashley  
Robin Clark  
Ryan Callison  
Sam Kitto  
Stephen Hartsfield

**US EPA Attendees**

Tami Laplante  
Laura McKelvey  
Erika Sasser  
Jessica Montanez  
Tom Link  
Alexis North

**Other Attendees**

Nanishka Albaladejo (EC/R Inc.)

**Agenda**

***1. Lead National Ambient Air Quality Standards (NAAQS)***

***a. Schedule***

The Lead NAAQS proposed rule was signed on May 1, 2008 and will be finalized on September 15, 2008, pursuant to a court order. The notice for the rule will be published in the Federal Register (FR) on May 20, 2008.

A 60-day public comment period (May 20, 2008 to July 21, 2008) will follow the publication. Two public hearings are scheduled for June 2008 and will take place in Baltimore, Maryland and Saint Louis, Missouri. These hearings are intended to provide stakeholders an opportunity to express comments and concerns. These locations were chosen based on the distribution of lead sources nationwide. There are more lead sources located in the East than in the western U.S.. Consequently, there are fewer major lead

sources and fewer areas affected by lead emissions along the west coast. Additional meetings can be scheduled at the request of Tribal leaders.

Laura McKelvey mentioned that the Lead NAAQS proposed rule would be discussed in more detail at the National Tribal Air Association (NTAA) conference, which will be held in June 2008 at Las Vegas, Nevada.

*b. Measuring Methodology*  
*i. Monitoring*

The Agency must include monitoring requirements in the final rule because the current monitoring networks are inadequate. To-date, there are an estimated 196 monitors nationwide. Some states (e.g., South Carolina) have several monitors, while others have none. One emphasis in this proposal is to try and establish guidelines for positioning lead monitoring equipment and new requirements for monitors near major lead sources. The Agency is proposing, depending on the level of the standard chosen, that sources that emit more than 600 kilograms (kg) of lead per year or 200 kg of lead per year, would be required to have a monitor located near the emitting source.

Mr. Jerney Howe asked why states, like Georgia and South Carolina have so many monitors. Laura McKelvey noted that historically, lead was considered on a neighborhood scale or as an urban-wide problem, because lead came predominantly from gasoline. In 1990, the phase-out of leaded gasoline resulted in changes to lead requirements. As a result, the nature (problem) of lead changed and became source orientated. The Agency encouraged monitoring around primary and secondary sources, but not all states discontinued their neighborhood scale monitoring. It is also possible that these monitors remained in place to assist with permits.

An estimated 200 to 500 monitors will likely be required if EPA finalizes the standards proposed in this rule. The proposed rule would require monitors to be dispersed differently. The size of the monitoring network will depend on the standard set. A stringent standard (e.g., set at a level of 0.10 micro-grams per cubic meter) would require more monitors, which would be phased-in over time. The first half of monitors would be phased-in by January 1, 2010 and the second group by January 1, 2011. If the standard chosen is less stringent, (e.g. set at a level of 0.30 micro-grams per cubic meter) a smaller network of monitors would be required, nationwide. These monitors would be phased-in by January 1, 2010.

There is a hope that STAG Funds would be made available to fund lead monitoring. The distribution of these funds would likely be done by states and Tribes. The Agency will not provide guidance on how these funds should be allocated. These decisions would be left to states and Tribes. One commenter noted that Intuk is putting together their budget suggestion. The commenter suggested that representative(s) might want to highlight this issue when requesting funding. Mr. Sam Kitto added that the transitional papers completed by Tribes and NTAA would be a good location to address funding issues.

## *ii. Indicator*

The Clean Air Act (CAA) requires the EPA to review NAAQS every five years. Although the Lead NAAQS have not been reviewed for 30 years, there has been a significant decrease in the production and consumption of lead (94 percent decrease in airborne lead concentrations since 1980). The dramatic decrease in lead emissions is largely due to the phase out of lead in gasoline, and also to programs like the maximum achievable control technology (MACT) air toxics standards have made lead standards more stringent.

Over the last 30 years, the average blood lead concentration has declined among children from 15 micro-grams per deciliter to less than 2 micro-grams per deciliter. Erika Sasser explained that these levels/statistics are used for understanding lead health effects. Although that is a significant drop in the level of lead, studies are continue to show health problems related to even small amount of lead exposure. A threshold for lead effects has not been identified, which raises concern when attempting to regulate exposures (ambient air or lead paint exposure) for children. In short, improvements in health effects in children regarding lead exposure have occurred, but more work is still needed.

The Agency is reviewing over 6,000 studies on health and environmental impacts, of which 2,000 are specific to health effects. Several studies are being reviewed that focused on lead exposure to children, particularly subgroups of children with lead blood levels less than 5 micro-grams per deciliter and less than 2 micro-grams per deciliter. The Agency is still seeing effects in these children, which has been informative when determining whether current standards are adequate.

The Agency stated in the rulemaking that the current standard of 1.5 micro-grams of lead per cubic meter of air is not adequate. Current studies suggest more stringent standards would be effective. Therefore, the Agency is suggesting reducing the current standard to 0.10 to 0.30 micro-grams per cubic meter.

## *iii. Health Effects*

Erika Sasser stated that lead could be absorbed in the body by either inhalation or digestion. Lead is often stored long-term in bones, although some amounts can pass through the digestive track. Once absorbed, it circulates through the blood system and can cause significant health problems, particularly on the central nervous system. However, the link that is being observed is between blood lead levels in children and associated learning disabilities, including brain damage (e.g., IQ impairment). Once the lead is in the blood, how does this exposure translate to IQ loss? Depending on how these two parameters (the air-to-blood ratio, and the relationship between blood lead levels and IQ loss) are defined would determine what standard level is appropriate to select within the range EPA has proposed (0.10 to 0.30 µg/m<sup>3</sup>).

Studies have shown that impairments (e.g., delinquent behavior) can persist into adulthood. Other health effects potentially caused by lead exposure in adults include high blood pressure and kidney problems. One commenter asked if there was any evidence that lead can contribute to Alzheimer's in adults; EPA responded that there has not been a relationship established between lead and Alzheimer's. In fact, the criteria documents studied the effects of lead on the elderly and found no clear link between health effects in elderly and remobilization of lead.

*c. The Rule*

The Lead NAAQS does discuss exceptional events. According to Mr. Tom Link, the preamble addresses the guideline for submitting data (data flagging and data documentation processing for submitting exceptional events data) to AQS database.

Sources of lead include, but are not limited to major stationary sources, particularly metal industries (e.g., iron and steel factories) or any source (e.g., utilities and boilers) that burns fossil fuels and emits small amounts of lead. The largest source of lead listed in the inventory is lead released from gas still used in small aircrafts (e.g., piston engine aircrafts). These crafts are still used in over 1,000 airports nationwide. Presently, the Agency is working to get a handle on how the emissions from these aircrafts are emitted and distributed. Mr. Campbell mentioned that there are a large number of small aircrafts in the Desert Southwest, as well as designated fly-in communities. He added that the Desert Southwest is not significantly impacted by weather. Consequently, there should be more build up of lead in this area. One commenter argued that the majority the lead emitted is thought to be produced during take-offs and landings. However, there is lack of research focused on determining the accumulation of lead.

Unlike ozone, lead is generally not impacted by seasonal changes. However, it might be impacted if production cycles are impacted by seasonal change. Although, seasonal effects may occur locally (because having fugitive emissions can suggest you have a certain period in the year that weather is dry or windy), lead would not undergo a transformation seasonal effect like ozone.

The weight of lead generally forces lead particles to fall out of ambient air relatively quickly. Consequently, people living close to sources will be exposed to higher quantities of lead (i.e., higher ambient air concentrations). In contrast, people living further away from lead emitting sources would typically find large amount of lead in the soil. The consumption of lead contaminated dirt/soil by children is one of the most common way children become exposed to lead. Family members could also be exposed to lead that has settled on surfaces and accumulated to form lead-based indoor dust. Therefore, trying to understand the pathway from an industrial source to the health outcome in children is the focus of this review.

Ms. Angela Lamberth asked about Mexico's attitude towards regulating lead in their gasoline. Ms. Erika Sasser noted that she was not certain if Mexico regulated these emissions, but acknowledged that there were likely some countries that still utilize leaded gasoline. Mr. Stephen Hartsfield stated that there was a problem with leaded gasoline and lead emission in Mexico, particularly along major Border-crossings for commercial trucks and vehicles. He explained that major trucks idle in line at the Border for hours, which could potentially produce large amount of lead. Mr. Hartsfield noted that states, including Arizona, have been impacted by these emissions. Ms. Laura McKelvey suggested improvements in communication, but agreed with Ms. Sasser and reemphasized that the weight of lead would force it to fall out of ambient air quickly and therefore should accumulate locally (along the roadside/shoulder).

Mr. Hartsfield asked if the proposed lead NAAQS rule included contaminated waste-sites (e.g., waste pile at a superfund site). One commenter noted that NAAQS apply anywhere and therefore, if there were a stir-up of tailings pile near a superfund site, which caused a violation of the standards then the source would be covered under this.

***i. Request for Comments***

*The Agency request comments on the following topics:*

- The Agency is trying to understand how to translate air concentration into a level for the standard through this blood pathway. Therefore, we are requesting comment on the relationship between ambient air concentrations and blood lead concentrations (the "air-to-blood" ratio), and on the relationship between lead blood levels and IQ loss.
- The Agency is seeking comment on a broader range of levels for the lead NAAQS, from below 0.1 up to to 0.5 micro-grams per cubic meter. The new standard will be more stringent, but the question remains what is the most appropriate level.
- Information on welfare effects is available (e.g., environmental effects associated with the deposition of lead in water bodies), but there is not a lot of information available that would allow us to set a separate level for secondary standards. Therefore, we are proposing that secondary standards for welfare be set equal to primary standards.
- In the past, the Agency has looked at quarterly averages. Unfortunately, lead has a long residence time (deposited on the ground) so the concentration does not change rapidly. We are looking at shortening the quarterly monitoring (sample 1 every 6 days) to a monthly averaging time (sample 1 every 3 days).
- In the past the Agency has looked at the maximum quarter over the course of a single year, but now we are proposing looking at the maximum quarter or the second highest

monthly average over the course of three years (36 months). To ensure that if you have year-to-year variation the highest quarter or second highest month is identified.

- The Agency is proposing to retain the total suspended particles (TSP) indicator, but is requesting comment on PM<sub>10</sub>, which has been suggested by the Clean Air Scientific Advisory Committee (CASAC). The CASAC has suggested measuring PM<sub>10</sub>, rather than TSP, because of greater extent of the network, as well as more flexibility and precision.
- The Agency is requesting comments on how to measure lead, while still allowing states and Tribes the flexibility of choosing monitoring instruments. The Agency is also proposing that states could develop scaling factors to allow them to use PM<sub>10</sub> in lieu of TSP data. Although, TSP monitoring ensures that all sizes of lead are being captured, PM<sub>10</sub> monitoring provides data that are more precise.

## **2. *Miscellaneous***

### ***a. Rule Update***

#### ***i. Final PM<sub>2.5</sub> Implementation Rule***

Ms. McKelvey announced that the PM<sub>2.5</sub> Implementation rule was finalized on May 8, 2008, and will be published shortly. To ensure that group members had adequate time to discuss the proposed Lead NAAQS rule, Laura suggested that the PM<sub>2.5</sub> Implementation rule be discussed during the next Tribal conference call. Group members agreed.

#### ***ii. Refinements Increment Rule***

A commenter announced that the Refinements Increments Rule is scheduled to be finalized by November 2008.

#### ***iii. Tribal NSR***

Ms. Jessica Montanez announced that the Tribal NSR rule would be finalized by March 2009.

### ***b. Consultations***

One commenter noted that Tribal leaders should have received a Tribal Conference Letter (in regards to Lead NAAQS), which was sent the previous week.

One commenter inquired on Tribal leaders' desire to have conference calls.

One commenter stated that Tribal leaders have not been expressing any concern/desire for a conference call.

**3. *Next Call***

Next call is scheduled for July 17, 2008, @ 2pm EST due to conferences in June.